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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/642,355

08/14/2003

William E. Sobel

SYMAP024

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10/23/2006

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EXAMINER

NGUYEN, MERILYN P

ART UNIT

PAPER NUMBER

2163

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,355

Applicant(s)

SOBEL, WILLIAM E.

Examiner

Merilyn P. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action.

DETAILED ACTION

1. In response to the communication dated 08/07/2006, claims 1-27 are pending in this application as the result of the cancellation of claims 28-29.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 15, 24, and 26-27 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 15, and 26-27, there are no given steps to arrive the method for rolling back an image or rolling back a computer state. The claims only recite determining a roll-back state associated with the computer image, configuring a current state to the roll-back state and determining whether the roll-back state is secure without any step describing the rolling function of computer resource.

Regarding claims 15 and 27, these claims are being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: steps in the body of the claims are not cooperative related to each other. For example, the step of leaving a marker in a first portion of a repository does not relate to the step of analyzing a second portion of the repository **determined by the marker and the safe state.**

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Please note that there is not step of determining a second portion of the repository by the marker and the safe state as claimed.

Regarding claim 24, this claim is being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: devices/modules are not structural cooperative related to each other. The amended limitation of "wherein the repository, scanner, and protection module are configured to permit the exchange of data, information, and/or instructions" does not cure the omitted structural cooperative relationships between devices/modules. For example, how the repository, the scanner and the protection module are connected to describe the rolling back of an computer image.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-27 stand rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 21 06(II)A:

Identify and understand Any Practical Application Asserted for the Invention The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level

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of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96), 'In re Ziegler, 992, F.2d 1 197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)34. Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

The claimed invention is subject to the test of State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a "useful, concrete and tangible result". The Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the

tangible requirement does require that the claim must recite more than a §101 judicial exception, in that the process claim must set forth a practical application of that §101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application").

In the present case, claimed invention (Claims 1-14, 24 and 26) recites a method for rolling a computer resource back to a state associated with a computer image comprising determining a roll-back state associated with the computer image, configuring a current state to the roll-back state and determining whether the roll-back state is secure which does not provide useful and tangible results. In order for the claim to be tangible, it must have real world value rather than being an abstract result. The claim contains software per se which is not tangible. Merely recite determining and configuring steps does not satisfy the useful result aspect of the practical application requirement.

In the present case, claimed invention (Claims 15-23 and 27) recites a method for reverting to a computer state comprising leaving a marker in a first portion of a repository; determining a safe state; reverting the computer state to the safe state; and analyzing a second portion of the repository determined by the marker and the safe state, including by performing one or more security checks which does not provide useful and tangible results. In order for the claim to be tangible, it must have real world value rather than being an abstract result. The claim contains software per se which is not tangible. Merely recite determining and reverting and analyzing steps does not satisfy the useful result aspect of the practical application requirement.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 and 19-27 re rejected under 35 U.S.C. 103(a) as being unpatentable over Humlicek (U.S. Patent No. 6,594,744), in view of Marquet (US 2004/0117622).

Regarding claims 1, 2, 26 and 28, Humlicek discloses a method, a computer program product for rolling a computer resource back to a state associated with a computer image (See col. 8, line 1-59) comprising:

- determining a roll-back state associated with the computer image (See col. 8, lines 5-7);
- configuring a current state to the roll-back state (See col. 8, lines 8-9); and

However, Humlicek is silent as to determining whether the roll-back state is secure. On the other hand, Marquet teaches determining whether the roll-back state is secure (See page 3, paragraph [0026], Marquet et al.). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to checking the security of roll-back state as suggested by Marquet. The motivation would have been to enhance the consistency of transactions of the computer resources (See [0026], Marquet et al.).

Humlicek/Marquet further discloses securing the roll-back state (See paragraph [0026], “acquire security state) as per claim 2, 26 and 28.

Regarding claims 3-5, Humlicek/Marquet discloses wherein the image is a system image, a file or an application image (See Fig. 2-5).

Regarding claim 6, Humlicek/Marquet discloses wherein determining a roll-back state includes determining a non-infected state (See col. 8, lines 1-28).

Regarding claim 7, Humlicek/Marquet discloses wherein configuring a current state to the roll-back state includes marking a first portion of a repository (See col. 8, lines 9-13 and col. 11, lines 2-7).

Regarding claim 8, Humlicek/Marquet discloses wherein configuring a current state to the roll-back state further includes reverting a second portion of the repository (See col. 8, lines 33-38, and col. 11, lines 11-40).

Regarding claim 9, Humlicek/Marquet discloses wherein evaluating a security definition in a repository providing data to the roll-back state (See col. 8, lines 29-33 and col. 11, lines 1-28).

Regarding claim 10, Humlicek/Marquet discloses determining whether the definition is updated (See col. 8, lines 29-33 and col. 11, lines 21-41).

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Regarding claim 11, Humlicek/Marquet discloses retrieving an updated definition if the definition is not updated (See col. 8, lines 29-33 and col. 11, lines 20-28).

Regarding claim 12, Humlicek/Marquet discloses installing the updated definition if the definition is not updated (See col. 8, lines 29-56).

Regarding claim 13, Humlicek/Marquet discloses wherein configuring a current state to the roll back state further includes displaying a message (See col. 5, lines 26-28 and col. 6, lines 50- 61) and receiving a user input (See col. 6, lines 12-16).

Regarding claim 14, Humlicek/Marquet discloses wherein configuring a current state to the roll- back state further includes using the user input to determine the roll-back state (See col. 10, line 66 to col. 11, line 7).

Regarding claims 15, 27 and 29, Humlicek/Marquet discloses a method for reverting back a computer state comprising:

- leaving a marker in a first portion of a repository (See col. 11, lines 1-5);
- determining a safe state (See col. 11, lines 1-2);
- reverting the computer state to the safe state (See col. 10, line 67 to col. 11, line 2); and
- analyzing a second portion of the repository determined by the marker and the safe state (See col. 11, lines 20-28), including by performing one or more security checks as addressed above in claim 1.

Regarding claim 16, Humlicek/Marquet discloses wherein scanning the repository further comprises:

- determining a version (See col. 8, lines 10-22 and col. 11, lines 2-5); and
- updating the version if the version occurred prior to leaving the marker in the first portion of the repository (See col. 8, lines 29-33).

Regarding claims 19-21, Humlicek/Marquet discloses wherein reverting the computer state to a safe state includes restoring a system/file/application to a previously non-infected version of the system/file/application (See col. 8, lines 1-28).

Regarding claim 22, Humlicek/Marquet discloses wherein the first portion of the repository is non-revertible (See col. 11, lines 10-11).

Regarding claim 23, Humlicek/Marquet discloses wherein the second portion of the repository is revertible (See col. 11, lines 1-6).

Regarding claim 24, Humlicek/Marquet discloses a system for rolling back a computer image comprising:

- a repository for storing data (See Fig. 2);
- a scanner for determining a roll-back state (host devices 104, 106 for example, Fig. 1);

a protection module for configuring a current state to the roll-back state (volume manage 144, Fig. 2); and

a security definition for securing the roll-back state as addressed above in claim 1 wherein the repository, scanner, and protection module are configured to permit the exchange of data, information, and/or instructions (See Fig. 1, the exchange function is described by bidirectional arrows).

Regarding claim 25, Humlicek/Marquet discloses a first portion of non-reversible memory for storing a marker; and a second portion of reversible memory for storing data related to the roll-back state. See Figs. 9-11.

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humlicek (U.S. Patent No. 6,594,744), in view of Marquet (US 2004/0117622) and further in view of Liang (US 2003/0115483).

Regarding claim 17, Humlicek/Marquet discloses all the claimed subject matter as set forth above in claim 15. However, Humlicek/Marquet is silent as to wherein determining a safe state includes searching for a virus. On the other hand, Liang teaches determining a safe state includes searching for a virus (See Fig. 5 and corresponding text, and paragraph [0026], Liang et al.). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to searching for a virus as suggested by Liang. The motivation would have been to securing the Humlicek/Marquet system by finding and killing the virus so that images files free of infections.

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Regarding claim 18, Humlicek/Marquet discloses all the claimed subject matter as set forth above in claim 15. However, Humlicek/Marquet is silent as to evaluating a result of a vulnerability assessment. On the other hand, Liang teaches evaluating a result of a vulnerability assessment (See paragraph [0052], Liang et al.). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to evaluating a result of a vulnerability assessment. The motivation would have been to prevent the recurrence of virus spreading.

Response to Arguments

6. Applicant's arguments filed 08/07/2006 have been fully considered but they are not persuasive.

Applicant argues that the rejections under 112 second paragraph and 101 are overcome by the amendment. The Examiner respectfully disagrees as addressed above in the 112 and 101 rejection section.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Merilyn P Nguyen whose telephone number is 571-272-4026. The examiner can normally be reached on M-F: 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



MN
October 16, 2006

